

Notice of Allowability

Application No.

09/890,503

Examiner

Anatoly Vortman

Applicant(s)

KREMERS ET AL.

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed on 06/17/2004.
2. ☒ The allowed claim(s) is/are 8-15 (renumbered 1-8, respectively).
3. ☒ The drawings filed on 31 July 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 0804.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.



Anatoly Vortman
Primary Examiner
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with **Mr. William C. Gehris, Reg. No. 38, 156 on 08/18/04.**

The application has been amended as follows:

In specification:

On p. 4, after the last line the following has been added:

--While a particular embodiment of the invention has been illustrated and described, modifications will become apparent to those skilled in the art, and it is intended to cover in the appended claims all such modifications as come with the scope of the invention. For example the current-limiting device may contain additional poles as described above with additional connecting conductors per pole so as to form a multi-pole current limiter.--

In the claims:

Claim 9, line 2 of the claim [a second and] has been deleted and following "a third" and before "electrode" --and a forth-- had been added.

2. The following is an examiner's statement of reasons for allowance:

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The allowability resides in the overall structure of the device as recited in sole independent claim 8 and, at least in part because claim 8 recites: “a first connecting conductor connected to the first electrode and disposed below the plurality of compression spaces and having an inverse current direction; and a ferromagnetic body disposed above the plurality of compression spaces”. The aforementioned limitations in combination with all remaining limitations of claim 8 are believed to render the claim and claims 9-15 dependent thereon patentable over the art of record.

The closest reference to the present invention is believed to be **SU/922,911 to Veretenkov et al.** (Veretenkov).

Veretenkov disclosed a self-regenerating current limiting device in which liquid metal is used, said current limiting device comprising first and second solid metal electrodes (3) for connection to a circuit to be protected via first and second connecting conductors (1, 2) and a plurality of compression spaces (7) partially filled with liquid metal (6) and arranged in series between the electrodes (3), said compression spaces (7) being formed of compression-proof insulating bodies (5) and insulating walls (4) with connecting channels formed therethrough, but did not disclose that said first connecting conductor disposed below the plurality of compression spaces and having an inverse current direction; and a ferromagnetic body disposed above the plurality of compression spaces as required by independent claim 8 of the instant application.

The following prior art made of record is considered pertinent to Applicant's disclosure:

US/3902150, 4429295, 338960, 3699489, 3381248, 3331937, 5471185, 5581192, 4598332, 3369094, 3886511, 3806855, 3644860, 3991396, 6525642, 1595061,

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DE/4012385, DE/1024595, DE/2652506, GB/2036443, GB/1538194, and JP/2-100216

disclosed liquid metal current-limiting devices.

None of the cited references either taken alone or in combination is believed to render the present invention unpatentable as claimed.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 571-272-2047. The examiner can normally be reached on Monday-Friday, between 10:00 am and 6:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anatoly Vortman
Primary Examiner
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AV

A handwritten signature in black ink, appearing to read 'A. Vortman', followed by a horizontal line.